



# **Discover Texas Health User Guide**

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## Introduction to Discover Texas Health

Discover Texas Health is a publicly accessible website sponsored by the University of Texas Health Science Center at Houston School of Public Health Center for Health Care Data (CHCD). Discover Texas Health seeks to identify variances in health outcomes for Texans across payor sources in the following areas: population health status, costs, utilization, disease prevalence, health risk scores, quality outcomes, and associated non-medical drivers of health (NMDOH). The website was created with the participation and feedback of key stakeholders, including providers, payors, and policymakers.

Our mission is to provide researchers and the general public with an accessible, easy-to-use tool to research the state of Texas residents' health and to generate questions about the implications of this data.

### Background

The CHCD is a leading data center in the heart of the Texas Medical Center – Houston, Texas. The CHCD conducts research, fosters education, and provides public service by studying collected healthcare data. Our interdisciplinary approach includes participation from clinicians, physicians, biostatisticians, management and policy professionals, and others. We provide resources, including expertise and support for qualified researchers, community organizations, government agencies, public policymakers, and others interested in healthcare delivery and its impact on population health.

The CHCD is certified by the Centers for Medicare & Medicaid Services (CMS) as a Qualified Entity (QE). This federal designation recognizes the ability and skills of the CHCD to house, analyze, and combine Medicare data with other large claims databases to create and disseminate CMS-approved reports to the general public. As a QE, the CHCD must promote transparency in healthcare delivery by reporting on quality and in Texas. The CHCD has created the Discover Texas Health to support this goal.

## Data Sources

Discover Texas Health includes claims data for over 80% of insured persons in Texas.

Medicaid – includes persons who receive covered services delivered through managed care health plans under contract with the state and the Medicaid fee-for-service plan that reimburses providers directly for covered services.

Medicare Fee For Service (FFS) – includes persons with traditional Medicare that cover hospital/facilities, provider, and pharmaceutical services, which are reimbursed directly to providers from the federal government.

Medicare Advantage (MA) and Medicare Supplemental (Med Sup) – include persons who are enrolled in Medicare-approved private insurance plans under Medicare Part C (MA) or who provide additional benefits outside of the Medicare FFS plans (Med Sup).


Commercial – includes plans such as fully insured and employer-sponsored health insurance and Affordable Care Act market plans.

Aggregated 65+ population – the combined count of Texans 65 and older from all data sources, including Medicare FFS, Medicaid, MA, Med Sup, and Commercial plans.

Medicare FFS and Medicaid data represent 100% of persons covered by these plans in Texas. MA and Commercial plans' coverage vary by region. This is due to limited regional coverage for some plans and incomplete contributions to the website.


Currently, Discover Texas Health covers the calendar years 2015-2021. As additional years of data become available, the site will incorporate them.

## How to Use the Discover Texas Health

Refer to the [Description of Measures](#) Section for background details and definitions. Some of this information is also provided on the website when users click on the  information symbol (see additional details about the symbol below).

### Common Features

The following features are found on multiple-page tabs:

- **Maps** – except where noted, most page tabs display three color-coded maps that provide information by the following three coverage types:
  - Medicaid
  - Medicare
    - Select Medicare Type – provides the options below for viewing subsets of or all Medicare-eligible individuals in the database. “Medicare” is the default information displayed at login; however, once a selection is made, data for the selected option will display when navigating to other pages until another selection is made. The options are Medicare, Medicare Advantage (MA)/Medicare Supplementary, and Aggregated 65+.
  - Commercial
- **Select 3 Digit Zip and Click** – type in a specific 3-digit zip code, select from a dropdown list, or hover the mouse over a specific 3-digit zip code, and the specified area will then be highlighted on the maps. This option is located above the map(s) on the Main and Aggregate Report tabs and below the maps (on the right) for all other maps except the NMDOH tab.
- **Detailed Map Outcomes** – type in a specific 3-digit zip code or select from a dropdown list to see more detailed information, or hover the mouse over a specific 3-digit zip code to see more detailed information. To return to the full map, click anywhere on the map outside of Texas.
- **Information symbol** –  Where this symbol appears, hover the mouse on the symbol for an explanation of selected terms.
- **Age and Gender Data** – For selected maps (entire state or specified 3-digit zip selections), the tool generates data by age and gender, i.e., male and female, in bar graphs below the maps.
- **Color Coding for Age and Gender Bar Charts** – Purple includes all

persons in the database; pink includes only females; blue includes only males; and grey includes both males and females in each age bracket.

## Main Dashboard

### Maps

The Main Dashboard features three color-coded maps that each illustrate the percentage of covered persons in the 3-digit statewide zip codes for which claims data was available and used in the reporting metrics. The maps and color legend provide the percent of the covered population of Texans captured in our data by this tool for all applicable years.


Please refer to the [Common Features](#) Section for additional information about features found on multiple page tabs.

**Specific Detailed Map Outcomes** – the following detailed information is provided on the Main Dashboard maps:

- *Zip3* – the 3-digit zip code the data is displaying
- Zip3 Percent of Covered Persons
- State Percent of Covered Persons for the state of Texas
- Gender Bar Chart of Cover Persons

## Aggregate Report Dashboard

The Aggregate Report displays one color-coded map that shows aggregated results for cost, prevalence, quality, and utilization based on selections of variables. All data sources are combined regardless of payor, age, or gender. The data is displayed for the 3-digit statewide zip codes and can be filtered by selecting variables of interest. The variables are detailed below:

- **Year** – select a calendar Year from the dropdown menu
- **Select Category** – select from a list of Categories (options are in the numbered list below); then select a Measure associated with the selected Category. Hovering the mouse over  will display more information about the selection.
  1. Cost-All – costs for all medical conditions combined
    - **Select Measure** – select from a dropdown menu with the following choices:
      - Drug Cost
      - Medical Cost

- Total Cost
- 2. Prevalence-All – prevalence rates for selected medical conditions
  - **Select Measure** – select from a dropdown menu with the following choices:
    - Asthma
    - Cancer
    - Chronic Kidney Disease
    - Chronic Liver Disease
    - Chronic Pain
    - Congestive Heart Failure
    - COPD (Chronic Obstructive Pulmonary Disease)
    - Dementia
    - Diabetes
    - Hypertension
    - Multiple Sclerosis
    - Rheumatoid Arthritis
    - Stroke: All
    - Stroke: Intracerebral hemorrhage
    - Stroke: Ischemic Stroke
    - Stroke: Subarachnoid hemorrhage
    - With 2 Comorbidities – prevalence rate for persons with two of the above comorbidities
    - With 2+ Comorbidities – prevalence rate for persons with more than two of the above comorbidities
- 3. Quality-Asthma
  - **Select Measure** – select from a dropdown menu with the following choices:
    - Asthma Control
- 4. Quality-COPD

- **Select Measure** – select from a dropdown menu with the following choices:
  - Spirometry
- 5. Quality-Diabetes
  - **Select Measure** – select from a dropdown menu with the following choices:
    - Eye Exams
    - HbA1c (hemoglobin A1c)
    - Nephropathy Monitoring
- 6. Utilization-All
  - **Select Measure** – select from a dropdown menu with the following choices:
    - Acute Inpatient Stays
    - ER (emergency room) Visits
    - Observation Stays
    - Outpatient Facility
    - Professional Visits
    - Readmissions

Please refer to the [Common Features](#) Section for additional information about features found on multiple page tabs.

*Payor maps and Age/Gender information do not apply to the Aggregate Report data.*

**Specific Detailed Map Outcomes Data** – the detailed information provided when the user hovers the mouse on, or clicks on a 3-digit zip code on the Aggregate Report map includes:

- Zip3 – the 3-digit zip code category the data refers to
- Variation from the Texas Mean Ratio
- Value – the information provided varies based on the Category selected
  - *For Cost data* – costs per member per year (PMPY)
  - *For Prevalence* – percent of people with the disease




- *For Quality data* – percent of people with the disease who received appropriate treatment
- *For Utilization data* – number of visits/stays/readmissions per 1000 member years
  - *Professional Visit*- number of visits per member year

## Cost Dashboard

The Cost Dashboard features three color-coded maps that illustrate information about healthcare costs by coverage type, overall, and by age and gender. The data is displayed for the 3-digit statewide zip code areas and can be filtered by selecting variables of interest.

The variables for selection are detailed below:


- **Year** – select a calendar Year from the dropdown menu.
- **Population Group** – select from a dropdown menu with the following choices:
  1. All – costs for all medical conditions combined
  2. Diabetes – costs for persons with diabetes
- **Select Measure** – select a Measure associated with the selected Population Group. Hovering the mouse over  will display more information about the selection. Select from a dropdown menu with the following choices:
  - Total Cost
  - Medical Cost
  - Drug Cost
  - ER Cost
  - Acute Inpatient Cost
- **Select Cost Metric** – select one of the following metrics for viewing the data; this option is located below the map section:
  - Mean Ratio
    - The bar charts that display data for each of the three coverage types broken out by age and gender initially use data for the entire state, and therefore, all values equal 1.
    - To see *mean ratios by 3-digit zip region by payor*, hover the mouse over and/or click on a 3-digit zip region on the map of choice, and a bar chart will pop up with data for all payor types for that region. The mean ratio for the selected payor will be in bold font.

- o Clicking on 3-digit zip regions will also populate the bar charts located below the maps with *age and gender data* for the selected 3-digit zip region.
- o Cost by Average Per Member Per Year (PMPY)
  - The initial map displays averages for the entire state broken down by payor, age, and gender.
  - To see *cost by average PMPY by 3-digit zip region by payor*, click on a 3-digit zip region on the map of choice, and the bar charts located below the maps will populate with *age and gender data* for the selected 3-digit zip region.
- **Specific Detailed Map Outcomes Data** – the detailed information provided when hovering the mouse over or clicking on a 3-digit zip code on the Cost map includes:
  - o Zip 3 – the 3-digit zip code category the data refers to
  - o Variation from the Texas Mean Ratio

Please refer to the [Common Features](#) Section for additional information about features found on multiple page tabs.

## Utilization Dashboard

The Utilization Dashboard features three color-coded maps that illustrate the volume of medical services delivered and utilized by coverage type, overall, age, and gender. The data is displayed for the 3-digit statewide zip code areas and can be filtered by selecting variables of interest. The variables for selection are detailed below:


- **Year** – select a calendar Year from the dropdown menu
- **Population Group** – select from a dropdown menu with the following choices:
  - o All – utilization of services for all medical conditions combined
  - o Diabetes – utilization of services for persons with diabetes
- **Select Utilization Measure** – select a measure that will be associated with the Population Group; hovering the mouse over  will display more information about the selection; the dropdown menu has the following choices:
  - o ER Visits
  - o Acute Inpatient Stays
  - o Observation Stays
  - o Outpatient Facility

- Professional Visits
- Readmissions
- **Select Utilization Metric** – select one of the following metrics for viewing the data; this option is located below the map section:
  - Mean Ratio
    - The bar charts that display data for each of the three coverage types broken out by age and gender initially use data for the entire state, and therefore, all values equal 1.
    - To see *mean ratios by 3-digit zip region by payor*, hover the mouse over and/or click on a 3-digit zip region on the map of choice, and a bar chart will pop up with data for all payor types for that region. The mean ratio for the selected payor will be in bold font.
      - Clicking on 3-digit zip regions will also populate the bar charts located below the maps with *age and gender data* for the selected 3-digit zip region.
  - By Percent/Per Member Year (MY)/Per 1000 MY – units shown will depend on the measure selected
    - The initial map displays data for the entire state broken down by payor, age, and gender. The units for the selected measure will be labeled as follows:
      - By Percent (Readmissions)
      - Per MY (Professional Visits)
      - Per 1000 MY (ER Visits, Acute Inpatient Stays, Observation Stays, Outpatient Facility)
    - To see *data by 3-digit zip region by payor*, click on a 3-digit zip region on the map of choice, and the bar charts located below the maps will populate with *age and gender data* for the selected 3-digit zip region.
- **Specific Detailed Map Outcomes Data** – the detailed information provided when the user hovers the mouse on, or clicks on a 3-digit zip code on the Utilization map includes:
  - Zip3 – the 3-digit zip code category the data refers to
  - Variation from the Texas Mean Ratio

Please refer to the [Common Features](#) Section for additional information about features found on multiple page tabs.

## Condition Tab

The Condition tab of the dashboard features three color-coded maps that illustrate the prevalence of a variety of medical conditions as well as the incidence of selected types of stroke. Overall, the data is displayed by coverage type and broken down by age and gender. The data is displayed for the 3-digit statewide zip code areas and can be filtered by selecting variables of interest. The variables for selection are detailed below:

- **Year** – select a calendar Year from the dropdown menu
- **Select Category** – select from a list of Categories (options are in the numbered list below); then select a Measure that will be associated with the category chosen (for each category, different measures are available); hovering the mouse over  will display more information about the selections:

### 1. Prevalence of Chronic Disease

- **Select Measure** – select from a dropdown menu with the following choices:
  - Asthma
  - Cancer
  - Chronic Kidney Disease
  - Chronic Liver Disease
  - Chronic Pain
  - Congestive Heart Failure
  - COPD
  - Dementia
  - Diabetes
  - Hypertension
  - Multiple Sclerosis
  - Rheumatoid Arthritis
  - With 2 Comorbidities
  - With 2+ Comorbidities

### 2. Prevalence Other Conditions

- **Select Measure** – select from a dropdown menu with the following choices:

- Autoimmune Disorders
- Epilepsy
- Serious Mental Illness
- Stroke: All
- Stroke: Intracerebral hemorrhage
- Stroke: Ischemic Stroke
- Stroke: Subarachnoid hemorrhage

### 3. Incidence

- **Select Measure** – select from a dropdown menu with the following choices:
  - Stroke: All
  - Stroke: Intracerebral hemorrhage
  - Stroke: Ischemic Stroke
  - Stroke: Subarachnoid hemorrhage
- **Select Condition Metric** – selection one of the following metrics for viewing the data; this option is located below the map section:
  - Mean Ratio
    - The bar charts that display data for each of the three coverage types broken out by age and gender initially use data for the entire state, and therefore, all values equal 1.
    - To see *mean ratios by 3-digit zip region by payor*, hover the mouse over and/or click on a 3-digit zip region on the map of choice, and a bar chart will pop up with data for all payor types for that region. The mean ratio for the selected payor will be in bold font.
      - Clicking on 3-digit zip regions will also populate the bar charts located below the maps with *age and gender data* for the selected 3-digit zip region.
  - By Percent/Rate/Events Per 1000 MY – units shown will depend on the measure selected
    - For all conditions, rates will be displayed by percentage.
    - To see *data by 3-digit zip region by payor*, click on a 3-digit zip region on the map of choice, and the bar charts located below the maps will

populate with *age and gender data* for the selected 3-digit zip region.

- **Specific Detailed Map Outcomes Data** – the detailed information provided when the user hovers the mouse on or clicks on a 3-digit zip code on the Condition map includes:
  - Zip3 – the 3-digit zip code category the data refers to
  - Variation from the Texas Mean Ratio

Please refer to the [Common Features](#) Section for additional information about features found on multiple page tabs.

## Quality Dashboard

The Quality dashboard features three color-coded maps, allowing users to view quality metrics for several disease states by coverage type, overall, age, and gender. The data is displayed for the 3-digit statewide zip code areas for the selected Population Group and associated quality Measures. The variables for selection are detailed below:

- **Year** – select a calendar year from the dropdown menu
- **Select Population Group – Measure** – select from a dropdown menu with the following choices:
  - Asthma – Asthma Control
  - Diabetes – Eye Exams
  - Diabetes – HbA1c
  - Diabetes – Nephropathy Monitoring
  - COPD – Spirometry
- **Select Quality Metric** – selection one of the following metrics for viewing the data; this option is located below the map section:
  - Mean Ratio
    - The bar charts that display data for each of the three coverage types broken out by age and gender initially use data for the entire state, and therefore, all values equal 1.
    - To see *mean ratios by 3-digit zip region by payor*, hover the mouse over and/or click on a 3-digit zip region on the map of choice, and a bar chart will pop up with data for all payor types for that region. The mean ratio for the selected payor will be in bold font.
      - Clicking on 3-digit zip regions will also populate the bar charts located below the maps with *age and gender data* for the selected 3-digit zip region.

- By Percent
  - The initial map displays data for the entire state broken down by payor, age, and gender.
  - To see *data by 3-digit zip region by payor*, click on a 3-digit zip region on the map of choice, and the bar charts located below the maps will populate with *age and gender data* for the selected 3-digit zip region.
- **Specific Detailed Map Outcomes Data** – the detailed information provided when the user hovers the mouse on or clicks on a 3-digit zip code on the Quality map includes:
  - Zip3 – the 3-digit zip code category the data refers to
  - Variation from the Texas Mean Ratio

Please refer to the [Common Features](#) Section for additional information about features found on multiple page tabs.

## Risk Dashboard


The Risk tab of the dashboard features three color-coded maps that allow the user to view risk information based on clinical risk category (CRG) data for the 3-digit statewide zip code areas by coverage type, overall, age, and gender. Each 3M<sup>©</sup> CRG represents a clinically meaningful population segment with a defined health status (first digit 1-9) and disease severity (second digit 0-6). The CRG value is based on historical diagnoses and resource utilization. The variables for selection are detailed below:

- **Year** – select a calendar Year from the dropdown menu
- **Select Risk Measure** – select from a dropdown menu with the following choices:
  - 3M<sup>©</sup> CRG
- **Select Risk Metric**
  - by CRG
    - The bar charts that display data for each of the three coverage types broken out by age and gender initially use data for the entire state.
    - To see data by 3-digit zip region by payor, click on a 3-digit zip region on the map of choice, and the bar charts located below the maps will populate with age and gender data for the selected 3-digit zip region.
  - To see mean ratios by 3-digit zip region by payor, hover mouse over and/or click on a 3-digit zip region on the map of choice, and a bar chart will pop up with data for all payor types for that region. The mean ratio for the selected payor will be in bold font.

Please refer to the [Common Features](#) Section for additional information about features found on multiple page tabs.

### Non-Medical Drivers of Health (NMDOH) Dashboard

The NMDOH (Non-Medical Drivers of Health) dashboard displays one color-coded map that illustrates data compiled by the County Health Rankings & Roadmap (CHR&R). Data from the CHR&R is derived from numerous public health sources. Maps are displayed by the county because most health-related metrics are reported at the county level. The data displayed can be filtered by selecting variables of interest detailed below (see [Description of Measures](#) for details):

- **Select Population** – select from a dropdown menu with the following choices:
  - 65 Plus
  - Child and Adolescent Health
  - General Population
  
- **Select Determinant Categories** – select from a list of Categories (options are in the numbered list below); then select a Subcategory that will be associated with the selected Determinant Category (for each category, different subcategories are available to allow the user to drill down on the elements that are included in the determinant categories); hovering the mouse over  will display more information about the selections:
  1. Overall Score
    - **Select Subcategory** – select one of the following choices:
      - Access Composite Scale
      - Health Behaviors Composite Scale
      - Health Outcomes Composite Scale
      - Physical Environmental Composite Scale
      - Social and Economic Environmental Composite Scale
  2. Access Composite Scale
    - **Select Subcategory** – select one of the following choices:
      - Mental Health Professional Access Scale
      - PCP (primary care provider) Access Scale
  3. Health Behaviors Composite Scale



- **Select Subcategory** – select one of the following choices:
  - Adult Obesity Scale
  - Adult Smoker Scale
  - Alcohol-Impaired Driving Death
  - Drinking Scale
  - Food Environment Index Scale
  - Physical Activity Scale
  - Sleep Scale
- 4. Health Outcomes Composite Scale
  - **Select Subcategory** – select one of the following choices:
    - Life Expectancy Scale
    - Perceived Health Scale
    - Perceived Mental Health Scale
    - Perceived Physical Scale
- 5. Physical Environmental Composite Scale
  - **Select Subcategory** – select one of the following choices:
    - Air Pollution Scale
    - Drinking Water Safety Scale
    - Food Desert Scale
    - Severe Housing Problem Scale
- 6. Social and Economic Environmental Composite Scale
  - **Select Subcategory** – select one of the following choices:
    - Hunger Scale
    - Income Scale
    - Injury Death Scale
    - Social Scale
    - Violent Crime Scale
- **Charts** – bar charts are displayed on the right side of the page that summarize

data based on the selected variables. County data is shown in comparison to State Values.

- The initial data shown (when no county has been selected) is for the entire state for the selected variables.
- To view the data by individual county, click on a county on the map, and the charts will populate with the selected county's data (colored bar) compared with the State data (gray bar) for the selected population. The following three charts are displayed:
  - Overall Score
  - Scores for all Health-Related Factors
  - Scores for the Subcategories of Health-Related Factors
- **Select County and Click** – type the county name in the box or select from the dropdown menu. This option is located above the map.
- **Specific Detailed Map Outcomes Data** – the detailed information provided when the user hovers the mouse on a county on the map includes:
  - *County* – the name of the county the data refers to
  - *County Value* – the health-related metric value for the selected county based on the selected variables
  - *State Value* – the health-related metric value for the state based on the selected variables

Please refer to the [Common Features](#) Section for additional information about features found on multiple page tabs.

## Description of Measures

### Rating Scale

Ratings are calculated using *mean ratios* for each 3-digit zip code area divided by the *mean* for all persons in Texas included in the Discover Texas Health databases.

The *mean* is specific to the population identified in the map.

The *mean ratio* is the calculation for that cohort over the *mean* for the specified measurement. *Mean ratios* are color-coded and represent variation from the Texas *mean* as follows:

- Red represents values >1.5 times the 75<sup>th</sup> percentile of the Texas mean.
- Dark green represents values <1.5 times the 75<sup>th</sup> percentile of the Texas mean.
- The other green colors represent variations lower than the 75<sup>th</sup> percentile of the Texas mean.

- The other red colors represent variations higher than the 75<sup>th</sup> percentile of the Texas mean.

Percent represents the amount per hundred of the defined population.

Member year (MY) is defined as the sum of the number of members for each month of the year divided by twelve to derive a count of members for the year.

## Cost

Total Cost: The measure is derived from the National Quality Forum's (NQF) endorsed measure 1604, Total Cost of Population-based per member per month Index (HealthPartners). It includes all costs paid by the insurer(s) and/or the member, which is the allowed amount for services delivered by professional, facility inpatient and outpatient, pharmacy, lab, radiology, ancillary, and behavioral health services. Total cost represents the sum of all medical and pharmacy costs incurred during the measurement year. The average cost per member per year is the total cost for that group divided by the number of insured member years.

Medical Cost: This is a subcomponent of Total Cost. It includes the cost of all healthcare-related services (professional and facility) incurred during the measurement year.

Drug Cost: This is a subcomponent of Total Cost. It covers the cost of all prescription medications, excluding those provided in an inpatient setting incurred during the measurement year.

## Utilization

ER (Emergency Room) visits: This is the total number of unique ER events (by unique patient and date of service) during the measurement year displayed per 1,000 MY by 3-digit zip code, by gender, by age, and by payor. These visits are identified by revenue codes 0450,0452, 0456. This does not include any ER visits that result in an inpatient admission.

Acute Inpatient Visits: This is the total number of acute inpatient hospital admissions. These admits cover the patient from the time of admission to the time of discharge. It includes unique acute inpatient events (by unique patients and unique admission date) during the measurement year displayed per 1,000 MY by 3-digit zip code, by gender, by age and gender, and by payor.

Observation Stays: This represents the total number of unique claims for observation stays (Revenue codes: 0760-0762; 0769). An observation stay is an alternative to an inpatient admission that allows reasonable and necessary time to evaluate and render medically necessary services to a patient whose diagnosis and treatment are not expected to exceed 24 hours but may extend to 48 hours. Observation stays include unique patients and service dates during the measurement year displayed per 1,000 MY by 3-digit zip code, by gender, by age and gender, and by payor.

Outpatient Facility: This is the total number of unique outpatient facility visits delivered by a hospital or other facility, identified by bill type 13x, 83s, or 7x, during the measurement year displayed per 1,000 MY by 3-digit zip code, by gender, by age and gender, and by payor.

Professional Visits: This is the total number of unique professional visit claims for healthcare services or supplies rendered by a licensed care provider (physician, nurse, clinician,

therapist, etc.) in any care setting (inpatient, outpatient facility, or office or clinic setting) during the measurement year displayed per MY by 3-digit zip code, by gender, by age and gender and by payor.

Readmissions: Readmissions represent all 30-day readmissions after discharge from an inpatient stay during the measurement year displayed as a percentage of initial admissions.

### Prevalence/Incidence

Prevalence: The number of people with a disease/condition in a specified population in the reported year.

Incidence: The number of new cases that develop in the reported year for a specified population.

### Conditions

Chronic Diseases/Conditions: Health conditions or diseases that are persistent or otherwise long-lasting.

Other Conditions: Illnesses, injuries, or impairments not considered chronic.

Rare Conditions: Chronic or other conditions/diseases are considered rare when they affect only a small proportion of the population, generally 1 in 1,600 persons. These conditions must be reported differently, as a geographic distribution may identify individuals with the rare condition. Rates for rare conditions are shown as a rate per 100,000.

HEDIS®: HEDIS® stands for the Healthcare Effectiveness Data Information Set, produced by the National Committee for Quality Assurance. It is a comprehensive set of standardized performance measures designed to provide purchasers and consumers with the information they need for reliable comparison of health plan performance.

Asthma: Percentage of persons represented in the dataset with persistent asthma in the measurement year or any prior year. Persistent asthma was identified using HEDIS® criteria.

Autoimmune Disorders: Percentage of persons with any of the following conditions: Lupus, Crohn's, Celiac Disease, Irritable Bowel Disease, Ulcerative Colitis, Guillain Barre, CIDP (Chronic inflammatory demyelinating polyneuropathy), Graves, Hashimoto Thyroiditis, Myasthenia Gravis, Vasculitis, Addison's, Sjogren's Syndrome, Pernicious Anemia, Hemolytic Anemia, Sickle Cell Anemia, HIV (human immunodeficiency virus).

Cancer: Percentage of persons represented in the dataset with cancer in the measurement year. Cancer was identified using HEDIS® criteria.

Chronic Kidney Disease: Percentage of persons represented in the dataset with chronic kidney disease in the measurement year or any prior year. Chronic kidney disease was identified using HEDIS® criteria.

Chronic Liver Disease: Percentage of persons represented in the dataset with chronic liver disease (including Cirrhosis and Chronic Hepatitis) in the measurement year or any prior year. Chronic liver disease was identified using HEDIS® criteria. Chronic Liver Disease includes alcoholic liver disease, toxic liver disease, hepatic failure, chronic hepatitis, cirrhosis, and fibrosis of the liver.

Chronic Obstructive Pulmonary Disease (COPD): Percentage of persons represented in the dataset with chronic obstructive pulmonary disease in the measurement year or any prior year. Chronic obstructive pulmonary disease was identified using HEDIS® criteria (a diagnosis code for chronic obstructive pulmonary disease, chronic bronchitis, or emphysema on at least one encounter in any setting).

Chronic Pain: Percentage of persons represented in the dataset with chronic pain in the measurement year. Chronic pain was identified using HEDIS® criteria (a persistent pain not related to neoplasms, inclusive of chronic pain syndrome).

Congestive Heart Failure (CHF): Percentage of persons in the dataset with congestive heart failure in the measurement year or any prior year. Congestive Heart Failure was identified using HEDIS® criteria (a diagnosis code for CHF on at least one encounter in any setting).

Dementia: Percentage of persons represented in the dataset with Dementia in the measurement year or any prior year. Dementia was identified using HEDIS® criteria (includes Dementia, Senility, Alzheimer's, and Cognitive Impairments).

Diabetes: Percentage of members with diabetes in the measurement year or any prior year. Diabetes was identified using HEDIS® criteria (individuals with a diagnosis code for diabetes on at least two outpatient or one inpatient or one Emergency Department (ED) visit or has been dispensed insulin or hypoglycemic agents).

Hypertension: Percentage of members with hypertension in the measurement year or any prior year. Hypertension was identified using Healthcare Cost Institute criteria (individuals with a diagnosis code for hypertension on at least three encounters in any setting).

Multiple Sclerosis: Percentage of members with multiple sclerosis in the measurement year or any prior year. Multiple Sclerosis is a chronic and progressive autoimmune disorder affecting the central nervous system, resulting in demyelination and the development of physical and cognitive impairments. Multiple sclerosis was identified using diagnosis codes.

Rheumatoid Arthritis: Percentage of persons represented in the dataset with rheumatoid arthritis in the measurement year or any prior year. Rheumatoid Arthritis is an autoimmune disease in which the body's immune system attacks the joints, creating inflammation, swelling, and pain in and around the joints. Rheumatoid Arthritis was identified using diagnosis codes.

Serious Mental Illness (SMI): Individuals with a mental health condition that is severe, persistent, and interferes with daily life are diagnosed with SMI. This diagnosis includes conditions such as major depressive disorder, bipolar disorder, schizophrenia, psychosis, and obsessive-compulsive disorder. We identified these using ICD-10 and ICD-9 codes with at least one inpatient visit or two outpatient visits.

Stroke - All: A stroke occurs when something blocks blood supply to part of the brain or when a blood vessel in the brain bursts. In either case, parts of the brain become damaged or die.

Stroke - Intracerebral hemorrhage: A hemorrhagic stroke happens when an artery in the brain leaks blood or ruptures.

Stroke - Ischemic: An ischemic stroke happens when blood flow through the artery that supplies oxygen-rich blood to the brain becomes blocked.

Stroke - Subarachnoid hemorrhage: Subarachnoid hemorrhage (SAH) is a stroke caused by

bleeding into the space surrounding the brain.

With 2 Comorbidities: The percentage of persons with up to two comorbid chronic conditions tracked on the Discover Texas Health website during the measurement year or any prior year.

With 2+ Comorbidities: The percentage of persons with more than two chronic comorbid conditions tracked on the Discover Texas Health website during the measurement year or any prior year.

## Quality

The quality measures are derived using the standard methodology provided by HEDIS® or the NQF and are approved by the Qualified Entity Certification Program (QECF) and CMS.

Asthma Control: The percentage of persons represented in the dataset 5–64 years of age during the measurement year who were identified as having persistent asthma were dispensed appropriate medications and remained on medications for at least 75% of their treatment period.

COPD - Spirometry: The percentage of persons represented in the dataset 40 years of age and older with a new diagnosis of COPD or newly active COPD who received appropriate spirometry testing to confirm the diagnosis during the measurement year.

Diabetes - Eye Exams: The percentage of persons represented in the dataset 18-75 years of age with diabetes (type 1 and type 2) who had an eye exam (retinal) performed during the measurement year.

Diabetes - HbA1c Testing: The percentage of persons represented in the dataset 18-75 years of age with diabetes (type 1 and type 2) who had HbA1c testing performed during the measurement year.

Diabetes - Nephropathy Monitoring: The percentage of persons represented in the dataset 18–75 years of age with diabetes type 1 and type 2 who underwent a nephropathy screening test or received medical attention for nephropathy during the measurement year.

## Risk

Population risk was estimated using 3M® Clinical Risk Grouper software. The software estimates the clinical risk for each individual patient using a combination of clinical diagnosis, procedural, and prescription drug codes identified from medical and pharmacy claims and a history of resource utilization using a proprietary algorithm. The population is segmented by level of health status (first digit 1-9) and disease severity (second digit 0-6), where a higher number represents poorer health status and increased disease severity, respectively.

### First Digit – Health Status

1. Healthy/Non-Users
2. History of Significant Acute Disease
3. Single Minor Chronic Disease
4. Minor Chronic Disease in Multiple Organ Systems

5. Single Dominant or Moderate Chronic Disease
6. Significant Chronic Disease in Multiple Organ Systems (Pairs)
7. Dominant Chronic Disease in Three Organ Systems (Triplets)
8. Malignancy
9. Catastrophic Condition Status

#### Second Digit – Severity Level

Severity levels for health status range from 0-6, with a higher number representing increased disease severity.

#### **NMDOH Factors**

Health-related factors are associated with a person's lifestyle, behavior, and social, economic, and physical environment. Data reported is derived from multiple sources and grouped as outlined in the County Health Rankings 2019 Texas Report. As the relative values of each measure are very different, the results were converted to a score between 1-5, with 1 representing the most favorable level and 5 the most hazardous level.

The selection of factors differs by population group, of which there are three: child and adolescent, general population, and over age 65. Categories are grouped as follows:

- Overall Score: The overall social determinant score for the county.
- Access: The access to select health care professionals or coverage.
- Health Behaviors: Key health behaviors include smoking, obesity, exercise, sexual activity, sleep, alcohol use, and nutrition.
- Health Outcomes: Measures of health, including subjective responses relating to perceived health status and surveillance data on life expectancy or mortality.
- Physical Environment: The elements in the physical environment, such as air and water quality, housing, and food availability.
- Social and Economic Environment: The elements within the social and community setting include safety, violence, high school graduation rate, income, unemployment, and single-parent households.

Each specific measure is described below:

- Access to Exercise Opportunities: represents the percentage of the population with adequate access to locations for physical activity.
- Access to Specialists: represents the rate of specialty physicians practicing within the county in relation to the population of the county.
- Adult Obesity: represents the percentage of the adult population (age 20 and older) that reports a body mass index (BMI) greater than or equal to 30 kg/m<sup>2</sup>.

- Adult Smoker: represents the percentage of adults who are current smokers.
- Air Pollution: represents the average daily density of fine particulate matter in micrograms per cubic meter (PM2.5).
- Alcohol-Impaired Driving Death: represents the percentage of driving deaths with alcohol involvement.
- Child Mortality: represents the number of deaths among children under age 18 per 100,000 population.
- Children in Poverty: represents the percentage of people under age 18 in poverty.
- Dental Access: represents the rate of the number of dentists practicing within the county in relation to the population of the county.
- Disconnected Youth: represents the percentage of teens and young adults ages 16-19 who are neither working nor in school.
- Disparity: represents an index of dissimilarity in the racial/ethnic identification of members in the community.
- Drinking Water Safety: represents the indicator of health-related drinking water violations.
- Drinking: represents the percentage of adults reporting binge or heavy drinking.
- English Proficiency: represents the percentage of adults proficient in the English language.
- Food Desert: represents the percentage of the population who are low-income and do not live close to a grocery store.
- Food Environment Index: represents the Index of factors that contribute to a healthy food environment.
- High School Graduation: represents the percentage of a ninth-grade cohort that graduates in four years.
- Hunger: represents the percentage of the population that lacks adequate access to food.
- Income: represents the median household income.
- Infant Mortality: represents the number of all infant deaths (within 1 year) per 1,000 live births.
- Injury Death: represents the number of deaths due to injury per 100,000



population.

- Low Birth Weight (LBW): represents the percentage of live births with low birthweight (< 2,500 grams).
- Life Expectancy: represents the average number of years a person can expect to live.
- Mental Health Professional Access: represents the rate of the number of mental health professionals practicing within the county in relation to the population of the county.
- Primary Care Physician (PCP) Access: represents the rate of the number of PCPs practicing within the county in relation to the population of the county.
- Perceived Health: represents the percentage of adults reporting fair or poor health (age-adjusted).
- Perceived Mental Health: represents the average number of mentally unhealthy days reported in the past 30 days (age-adjusted).
- Perceived Physical Health: represents the average number of physically unhealthy days reported in the past 30 days (age-adjusted).
- Persons Per Household: represents the average number of persons per household.
- Physical Activity: represents the percentage of adults age 20 and over reporting no leisure-time physical activity.
- Severe Housing Problem: represents the percentage of households that spend 50% or more of their household income on housing.
- Single-Parent Household: represents the percentage of children that live in a household headed by a single parent.
- Sleep: represents the percentage of adults who report fewer than 7 hours of sleep on average.
- Social: represents the number of membership associations per 10,000 population.
- Some College: represents the percentage of adults ages 25-44 with some post-secondary education.
- Sexually Transmitted Disease (STD) Infections: represents the number of newly diagnosed chlamydia cases per 100,000 population.
- Teen Birth: represents the number of births per 1,000 female population ages 15-

19.

- Unemployment: represents the percentage of the population ages 16 and older who are unemployed but seeking work.
- Uninsured: represents the rate of uninsured persons in the county.
- Violent Crime: represents the number of reported violent crime offenses per 100,000 population.

## Comments and Feedback

We value your opinion and would love to hear your feedback to help us improve our resources. Your opinion is valuable, so please send your comments and feedback to [CHCD@uth.tmc.edu](mailto:CHCD@uth.tmc.edu).